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# Seminar Theses HWS 2024: "Current topics in Finance"

- TOPIC NR1: Attention and Price Pressure Advisor: Lukas Mertes
- **TOPIC NR2:Portfolio Driven Disposition Effect**<br/>Advisor: Lukas Mertes
- TOPIC NR3: Momentum Crashes Advisor: Lukas Mertes
- **TOPIC NR4:The Rise of ESG Investing in the Mutual Fund Industry**<br/>Advisor: Larissa Ginzinger
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- **TOPIC NR6:Carbon Emissions and Stock Prices: Is There a Carbon Premium?**<br/>Advisor: Larissa Ginzinger
- **TOPIC NR7:Exploring the Household Earnings Gap: Gender Norms and Economic Implications**<br/>Advisor: Leah Zimmerer
- **TOPIC NR8:The Gender Wage Gap: Influences of Wage Setters' Gender and Age**<br/>Advisor: Leah Zimmerer
- TOPIC NR9:
   The Gender Gap in Stock Market Participation

   Advisor: Leah Zimmerer



### TOPIC NR1: Attention and Price Pressure

#### Advisor: Lukas Mertes

The universe of stocks an individual investor can choose from when deciding about buying (and selling) a stock is huge. As attention is a scarce resource not all stocks can be monitored at a time. Attention Theory by Barber and Odean (2008) posits that individual investors focus on those stocks which are attention grabbing. As the number of potential buyers is much larger than the number of potential sellers, attention should result in a net buying position on the market level, leading to price pressure in the short run.

Barber and Odean (2008) provide first empirical evidence that individual investors buy attention-grabbing stocks. For example, stocks are bought more often when they exhibit high contemporaneous abnormal trading volume and thereby grab investors' attention. The measures of attention in Barber & Odean (2008) are, however, indirect ones. The authors need to assume that abnormal trading volume, previous day's returns, and mentions in the news indeed affects attention.

Da, Engelberg, and Gao (2011) use Google Search Volume Index (SVI) as a direct measure of revealed attention. They provide evidence that SVI captures investors' attention in a timelier fashion than the measures by Barber and Odean (2008) and link SVI to the number of individual orders and turnover, thereby confirming the findings of Barber and Odean (2008). Moreover, they show that an increase in attention as measured by the SVI affects prices. In the short-run, higher attention results in positive abnormal returns (week 1-2) before prices ultimately revert (week 5-52).

### **Goals/Requirements:**

The goal of this seminar thesis is to empirically examine the relation between attention and stock prices in Germany. The student is expected to broadly replicate the price pressure findings (Table 6 and 7) of Da, Engelberg, and Gao (2011) using German data. In particular, the student is expected to measure attention using the Wikipedia pageview analysis of DAX companies. The empirical work requires the use of individual stock returns. Data are accessible at WRDS. Empirical work for this topic requires the use of statistical software (e.g., Stata), manipulation of data, and the application of econometric methods. Prior experience in this area is helpful.

- Barber, B., and Odean, T., 2008. All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. Review of Financial Studies, 21(2), 785-818
- Da, Z., Engelberg, J., and Gao, P. (2011). In search of attention. Journal of Finance, 66(5), 1461-1499.
- Daniel, K., Grinblatt, M., Titman, S., and Wermers, R., 1997. Measuring mutual fund performance with characteristic-based benchmarks. Journal of Finance, 52, 1035–1058.

### **TOPIC NR2:** Portfolio Driven Disposition Effect

#### Advisor: Lukas Mertes

One of the most prominent trading biases of investors is the Disposition Effect. It describes investors' tendency to hold on to loser stocks for too long and to sell winner stocks too early: The proportion of stocks sold which are trading at a gain is much higher than the one of stocks trading at a loss (Odean, 1998; Weber and Camerer, 1998). Not only individual, but also professional investors have been shown to suffer from the Disposition Effect (Frazzini, 2006).

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A recent study by An et al. (2024) shows empirically and experimentally that the Disposition Effect on the individual stock level significantly weakens if the portfolio is trading a gain but is large when the portfolio is trading at a loss. The authors find the Portfolio Driven Disposition Effect (PDDE) in four different settings: in US household data by Barber and Odean (2000), in Chinese brokerage data, in an experiment with Amazon Mechanical Turk workers, and in an experiment with Chinese students. Moreover, they rule out that alternative explanations like the rank effect (Hartzmark, 2015), tax-considerations, or portfolio rebalancing are driving the results.

Taken together, the evidence by An et al. (2024) suggests that investors do not only form mental frames at the stock but also the portfolio level. From an investor's point of view, realizing a loss on the stock level is less severe if the corresponding portfolio is trading at a gain rather than a loss. As such, the Disposition Effect is strongest when both frames indicate a loss.

### **Goals/Requirements:**

The goal of this seminar thesis is to empirically examine the Portfolio Driven Disposition Effect. The student is expected to broadly replicate the main findings of An et al. (2023) with respect to the US household data. Moreover, the student is expected to extend the findings by examining whether additional mental frames exist on other dimensions, for example on the industry level. The empirical work requires the use of individual stock returns. Data are available on request from Terrence Odean, and at WRDS. Empirical work for this topic requires the use of statistical software (e.g., Stata), manipulation of data, and the application of econometric methods. Prior experience in this area is helpful.

- An, L., Engelberg, J., Henriksson, M., Wang, B., and Williams, J., 2024. The Portfolio-Driven Disposition Effect. Journal of Finance, forthcoming.
- Barber, B., and Odean, T., 2000. Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors. Journal of Finance, 55(2), 773-806.
- Odean, T., 1998. Are Investors Reluctant to Realize Their Losses? Journal of Finance 53, 1775–1798.
- Weber, M., and Camerer, C., 1998. The disposition effect in securities trading: an experimental analysis. Journal of Economic Behavior and Organization, 33, 167-184.

# TOPIC NR3: Momentum Crashes

#### Advisor: Lukas Mertes

Perhaps the most robust market anomaly is the momentum effect. In their seminal paper, Jegadeesh and Titman (1993) show that a trading strategy that buys stocks which performed well in the past and sells stocks which have performed poorly in the past earns significant positive returns over the next 3 to 12 months. These returns cannot be explained by common risk factors, thereby questioning the idea of efficient markets. Since then, the momentum effect has been documented for various countries (Chui et al., 2010), time periods (Jegadeesh and Titman, 2001; Israel and Moskowitz, 2013), and asset classes (Okunev and White, 2003; Asness, Moskowitz, and Pedersen, 2013).

Daniel and Moskowitz (2016) propose a justification of the positive returns associated with momentum strategies: momentum crashes. In their sample of equity stocks from 1927 - 2013, the returns on a momentum strategy are negatively skewed. While returns are positive on average, they can be highly negative, for example as in the summer of 1932 or in the spring of 2009. The authors show that such momentum crashes are more likely to occur when the market has fallen in the past and contemporaneous market returns are high. As a consequence, the positive average return on momentum strategies might be regarded as compensation for the downside risk of facing significant losses during such market periods.

#### **Goals/Requirements:**

The goal of this seminar thesis is to empirically examine momentum crashes. The student is expected to broadly replicate the main findings (Table 1-4) of Daniel and Moskowitz (2016). Moreover, the student is expected to extend the sample period to cover the COVID pandemic as a predestined period for momentum crashes. The empirical work requires the use of individual stock returns. Data are accessible at WRDS and at Kenneth French's website.<sup>1</sup> Empirical work for this topic requires the use of statistical software (e.g., Stata), manipulation of data, and the application of econometric methods. Prior experience in this area is helpful.

- Jegadeesh, M., and Titman, S., 1993. Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency. Journal of Finance, 48(1), 65-91.
- Daniel, K., and Moskowitz, T., 2016. Momentum crashes. Journal of Financial Economics, 122, 221–247.

<sup>&</sup>lt;sup>1</sup> https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\_library.html

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# TOPIC NR4: The Rise of ESG Investing in the Mutual Fund Industry

### Advisor: Larissa Ginzinger

Over the past decade, there has been a notable rise in investor demand for sustainability. Hartzmark and Sussman (2019) use the introduction of Morningstar's sustainability globe ratings in 2016 as a shock to the salience of sustainability and find that investors allocate more money to funds rated more sustainable and less money to funds rated less sustainable. Due to the rise in investor demand for sustainability, the integration of environmental, social, and governance (ESG) factors into investment decisions, commonly referred to as ESG investing, has gained significant traction within the asset management industry. According to Bloomberg, ESG assets may hit \$53 trillion by 2025, representing a third of projected global assets under management.

The rise in ESG in the asset management industry has been driven by both the creation of new funds and repurposing, i.e., existing funds adopting greener sounding names. Cochardt et al. (2023) document that fund families are strategically repurposing relatively less successful funds that have experienced declining flows and poor past performance. Andrikogiannopoulou et al. (2022) construct text-based fund ESG measures by analyzing fund prospectuses. They document that fund flows respond positively to ESG information released through fund prospectuses. This holds even for funds where text-based and fundamental-based ESG measures diverge, suggesting that investors cannot distinguish between funds that are truly committed to sustainability and those that are greenwashing. According to Andrikogiannopoulou et al. (2022), greenwashing has become more prevalent since 2016 and among funds with lower past flows and higher expense ratios.

# **Goals/Requirements:**

The goal of this seminar thesis is twofold. First, the student is required to provide a comprehensive literature review on ESG investing in the mutual fund industry. The discussion should include, but not be limited to, (1) investor demand for sustainability; (2) the growing importance of ESG investing in the mutual fund industry; (3) different types of ESG investing; (4) greenwashing concerns. Second, the student is required to descriptively document the rise of ESG investing in the mutual fund industry using information on mutual fund prospectuses. Mutual fund data can be obtained from the CRSP Survivor Bias-Free Mutual Fund Database which is freely accessible to affiliates of the University of Mannheim. Mutual fund prospectuses can be downloaded from the SECs EDGAR platform. It is important that the candidate has at least basic knowledge of a statistical software program (e.g., Stata, R, or Python) and econometrics.

- Andrikogiannopoulou, A., Krueger, P., Mitali, S. F., & Papakonstantinou, F. (2022). Discretionary information in ESG investing: A text analysis of mutual fund prospectuses. SSRN Working Paper Series.
- Baker, M., Egan, M. L., & Sarkar, S. K. (2022). How do investors value esg? (No. w30708). National Bureau of Economic Research.
- Hartzmark, S. M., & Sussman, A. B. (2019). Do investors value sustainability? A natural experiment examining ranking and fund flows. The Journal of Finance, 74(6), 2789-2837.
- Cochardt, A., Heller, S., & Orlov, V. (2023). Do Mutual Funds Greenwash? Evidence from Fund Name Changes. SSRN Working Paper Series.
- Van der Beck, P. (2021). Flow-driven ESG returns. Swiss Finance Institute Research Paper.
- Kim, S., & Yoon, A. (2023). Analyzing active fund managers' commitment to ESG: Evidence from the United Nations Principles for Responsible Investment. Management Science, 69(2), 741-758.

# **TOPIC NR5: The Green Bond Boom**

# Advisor: Larissa Ginzinger

Green bonds, which are used to finance environmentally friendly ("green") projects, are a relatively recent development in sustainable finance. The first green bond was issued by the European Investment Bank in 2007 to finance renewable energy and energy efficiency projects. Since then, green bonds have surged in popularity – a development that has been referred to as the "green bond boom".

Flammer (2021) finds that investors respond positively to the issuance of green bonds, a response that is stronger for first-time issuers and third-party certified bonds. Moreover, the paper documents that issuers improve their environmental performance post-issuance (i.e., higher environmental ratings and lower CO2 emissions) and experience an increase in ownership by long-term and green investors. Overall, the results are consistent with a signaling argument - by issuing green bonds, companies credibly signal their commitment to the environment. However, more recent evidence by Aswani & Rajgopal (2023) suggests that the positive stock market reaction to green bond issuances is exclusively driven by either non-financial large issuers or by financial firms. Moreover, they find that issuers' emissions remain the same four years after issuance of green bonds suggesting that they have modest to no environmental impact in the short run.

### **Goals/Requirements:**

The goal of this thesis is twofold. First, the student is required to provide a comprehensive literature review on the green bond market. The discussion should include, but not be limited to, (1) the development of the green bond market over time; (2) investors' reaction to green bond issuances; (3) the effect of green bonds on firms' environmental profiles. Second, the student is required to descriptively illustrate the rise of green bonds over time and conduct an event study around green bond issuance. Information on green bonds can be downloaded from LSEG Workspace. Stock return data can be obtained from CRSP. These databases are freely accessible to affiliates of the University of Mannheim. It is important that the candidate has at least basic knowledge of a statistical software program (e.g., Stata, R, or Python) and econometrics.

- Aswani, J., & Rajgopal, S. (2022). Rethinking the value and emission implications of green bonds. Available at SSRN 4215882.
- ElBannan, M. A., & Löffler, G. (2024). How effectively do green bonds help the environment?. Journal of Banking & Finance, 158, 107051.
- Flammer, C. (2020). Green bonds: effectiveness and implications for public policy. Environmental and Energy Policy and the Economy, 1(1), 95-128.
- Flammer, C. (2021). Corporate green bonds. Journal of Financial Economics, 142(2), 499-516.
- Tang, D. Y., & Zhang, Y. (2020). Do shareholders benefit from green bonds?. Journal of Corporate Finance, 61, 101427.

# <u>UNIVERSITÄT</u> Mannheim

# TOPIC NR6: Carbon Emissions and Stock Prices: Is There a Carbon Premium?

### Advisor: Larissa Ginzinger

Climate change is one of the defining challenges of our time and poses a large aggregate risk to the economy and the financial system. Both the evidence of rising temperatures and renewed policy efforts to curb carbon emissions raise the question of whether carbon emissions now pose a material transition risk to investors that is reflected in stock prices. Carbon transition risk refers to the risks arising from the potential transition to a low-carbon economy.

Whether carbon transition risk is priced in financial markets has first-order implications for the likelihood and speed of a shift to a low-carbon economy. If stocks exposed to transition risk, as proxied by high carbon emissions, are heavily discounted, then companies have strong incentives to cut their emissions and investors will engage with companies to lower their emissions. In contrast, if markets insufficiently price in transition risk, then companies may not reduce their emissions nor investors decarbonize their portfolios. However, whether and why there is a carbon premium is an open empirical debate, as illustrated by Bolton and Kacperczyk (2021, 2024), Aswani and Rajgopal (2024a, 2024b), Atilgan et al. (2023), and Zhang (2024).

#### **Goals/Requirements:**

The goal of this thesis is twofold. First, the student is required to provide a comprehensive literature review on the carbon premium. The discussion should include, but not be limited to, (1) the theoretical underpinnings of the relation between climate risk and asset prices; (2) a comprehensive review of the empirical debate on the carbon premium and its drivers; (3) cross-country heterogeneity and the role of political systems and economic development in the pricing of carbon risk. Second, the student is expected to provide a descriptive illustration of corporate emissions and emission intensities over time and across industries, and to analyze the relationship between stock returns and emissions. Stock return data and firm-level accounting data can be downloaded from CRSP and Compustat respectively. Emission data is available from LSEG Workspace. These databases are freely accessible to members of the University of Mannheim. It is important that the candidate has at least basic knowledge of statistical software (e.g. Stata, R or Python) and econometrics.

- Aswani, J., Raghunandan, A., & Rajgopal, S. (2024a). Are carbon emissions associated with stock returns?. Review of Finance, 28(1), 75-106
- Aswani, J., Raghunandan, A., & Rajgopal, S. (2024b). Are Carbon Emissions Associated with Stock Returns? Reply. Review of Finance, forthcoming.
- Atilgan, Y., Demirtas, K. O., Edmans, A., & Gunaydin, A. D. (2023). Does the carbon premium reflect risk or mispricing?. SSRN Working Paper Series.
- Bolton, P., & Kacperczyk, M. (2021). Do investors care about carbon risk?. Journal of Financial Economics, 142(2), 517-549.
- Bolton, P., & Kacperczyk, M. (2023). Global pricing of carbon-transition risk. The Journal of Finance, 78(6), 3677-3754.
- Bolton, P., & Kacperczyk, M. (2024). Are carbon emissions associated with stock returns? Comment. Review of Finance, 28(1), 107-109.
- Giglio, S., Kelly, B., & Stroebel, J. (2021). Climate finance. Annual Review of Financial Economics, 13, 15-36.
- Zhang, S. (2024). Carbon returns across the globe. The Journal of Finance, forthcoming.

# <u>Universität</u> Mannheim

# **TOPIC NR7:** Exploring the Household Earnings Gap: Gender Norms and Economic Implications

#### Advisor: Leah Zimmerer

Studies show that wives typically earn less than their husbands, a pattern observed in most households worldwide. For instance, in Australia, women earn less than their husbands in 75% of households (Zimmerer, 2024). Bertrand, Kamenica, and Pan (2015) attribute this pattern to gender identity norms that discourage wives from out-earning their husbands.

Akerlof and Kranton (2000, 2010) integrate concepts from sociology and social psychology into economics, defining identity as belonging to a social category with specific behavioral expectations. They argue that deviating from these norms incurs inherent costs, thereby influencing economic outcomes. In their model, gender norms include the expectation that "a man should earn more than his wife".

Bertrand, Kamenica, and Pan (2015) show that when women have a higher likelihood of out-earning men, marriage rates decline. Additionally, wives with higher potential incomes are less likely to participate in the labor force and tend to earn less if they do work. Moreover, wives who earn more than their husbands often take on more household chores, experience lower marital satisfaction, and face a higher likelihood of divorce.

#### **Goals/Requirements:**

First, the student should review the literature on social identity and the household earnings gap. Second, the student should explore whether the main findings of Bertrand et al. (2015) persist in more recent years using the British Household Panel Survey. The empirical work requires the use of individual household panel data. Data are available online. Empirical work for this topic requires the use of statistical software (e.g., Stata), manipulation of data, and the application of econometric methods. Prior experience in this area is helpful.

- Akerlof, George A., and Rachel E. Kranton, Economics and Identity, Quarterly Journal of Economics, 115 (2000), 715–753.
- Akerlof, George A., and Rachel E. Kranton, Identity Economics: How Our Identities Affect Our Work, Wages, and Well-Being (Princeton, NJ: Princeton University Press, 2010).
- Bertrand, M., E. Kamenica, and J. Pan (2015). Gender identity and relative income within households. The Quarterly Journal of Economics 130 (2), 571–614.
- Zimmerer, L. (2024). Child Penalty and Intrahousehold Bargaining Power. Working Paper.

# UNIVERSITÄT MANNHEIM

# TOPIC NR8: The Gender Wage Gap: Influences of Wage Setters' Gender and Age

#### Advisor: Leah Zimmerer

The role of women in the economy has undergone significant changes over the last century. Historically, women had low labor market participation rates and often exited the workforce upon marriage. However, as of 2021, women now comprise 47.1% of the labor force, according to data from the U.S. Department of Labor. Despite this progress, women still face disparities in earnings compared to their male counterparts. Barroso and Brown (2021) find that in 2020, the raw gender wage gap in the US stood at 16%.

This raises the two questions: Are there any observable factors that can explain the decrease of the gender wage gap? Which factors can explain the remaining gender wage gap? Blau and Kahn (2014) analyze possible explanations of the gender wage gap in the US. They show that while the gender wage gap has decreased since 1980, disparities in wages between men and women persist despite controlling for various factors such as schooling, labor force experience and occupation.

Newton and Simutin (2015) argue that the gender and age of individual setting wages significantly influence the gender wage gap. Using a dataset on corporate officers' compensation, they find that CEOs tend to pay officers of the opposite gender less than those of their own gender, even after controlling for job characteristics. Furthermore, the bias is most pronounced among older and male CEOs.

#### **Goals/Requirements:**

First, the student should provide a comprehensive literature review on the gender wage gap, focusing on recent studies and possible explanations for the gap. Second, the student should replicate the main results of Newton and Simutin (2015), extending the analysis to include more recent years. The empirical work requires the use of executive compensation and company data. Data are accessible at WRDS. Empirical work for this topic requires the use of statistical software (e.g., Stata), manipulation of data, and the application of econometric methods. Prior experience in this area is helpful.

- Barroso, Amanda and Anna Brown, (2021). Gender pay gap in U.S. held steady in 2020, https://www.pewresearch.org/fact-tank/2021/05/25/gender-pay-gap-facts/
- Blau, F. D., & Kahn, L. M. (2017). The gender wage gap: Extent, trends, and explanations. Journal of Economic Literature, 55(3), 789-865.
- Newton, D., & Simutin, M. (2015). Of age, sex, and money: Insights from corporate officer compensation on the wage inequality between genders. Management Science, 61(10), 2355-2375.

# <u>Universität</u> Mannheim

### **TOPIC NR9:** The Gender Gap in Stock Market Participation

### Advisor: Leah Zimmerer

One of the most persistent puzzles in household finance is the low level of stock market participation among households (Haliassos and Bertaut, 1995). This is concerning because it may hinder wealth accumulation and lead to significant shortcomings in retirement income. Moreover, there exists a large gender gap in stock market participation. For example, only about 17.6% of women compared to 32.3% of men in Germany participate in the stock market (Niessen-Ruenzi and Zimmerer, 2024). Given the potential of stock market investments to mitigate gender pay and pension discrepancies as well as to counterbalance increasing inflation, examining barriers influencing women's stock market participation is crucial.

Several explanations have been proposed to explain the gap in stock market participation rates between men and women. These include marital status (Love, 2010), overconfidence (Barber and Odean, 2001), financial literacy (Bucher-Koenen, Lusardi, Alessie, and van Rooij, 2021) and gender norms (Ke, 2021). However, a comprehensive evaluation of the different explanation of the gender gap in stock market participation is currently lacking.

# **Goals/Requirements:**

First, the student should review the literature that proposes explanations for the difference in stock market participation rates between men and women. Second, the student should explore cross-sectional variations in the gender gap in stock market participation and how they interact with each other. Finally, following the methodology of Blau and Kahn (2017) the student should explore the importance of various factors that explain for the stock market participation gap between the genders. The empirical work requires the use of individual household panel data which are available online. Empirical work for this topic requires the use of statistical software (e.g. Stata), manipulation of data, and the application of econometric methods. Prior experience in this area is helpful.

- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. The Quarterly Journal of Economics, 116(1), 261-292.
- Bucher-Koenen, T., A. Lusardi, R. Alessie, and M. Van Rooij, 2017, How financially literate are women? An overview and new insights, Journal of Consumer Affairs, 51(2), 255–283.
- Blau, F. D., & Kahn, L. M. (2017). The gender wage gap: Extent, trends, and explanations. Journal of Economic Literature, 55(3), 789-865.
- Haliassos, M., & Bertaut, C. C. (1995). Why do so few hold stocks?. The Economic Journal, 105(432), 1110-1129.
- Ke, D. (2021). Who wears the pants? Gender identity norms and intrahousehold financial decision-making. The Journal of Finance, 76(3), 1389-1425.
- Love, D. A. (2010). The effects of marital status and children on savings and portfolio choice. The Review of Financial Studies, 23(1), 385-432.
- Niessen-Ruenzi, A. und Zimmerer, L. (2024). The Gender Investment Gap: Reasons and Consequences. Working Paper.